

University of Nebraska - Lincoln

## DigitalCommons@University of Nebraska - Lincoln

---

Library Philosophy and Practice (e-journal)

Libraries at University of Nebraska-Lincoln

---

1-24-2020

### QR Codes: Academic Library Perspective in Digital Age

Jayadev H. Kadli

*Lala Lajpatrai College of Commerce & Economics, Mahalaxmi, Mumbai - 34*, [jhkadli@gmail.com](mailto:jhkadli@gmail.com)

Follow this and additional works at: <https://digitalcommons.unl.edu/libphilprac>



Part of the [Library and Information Science Commons](#)

---

Kadli, Jayadev H., "QR Codes: Academic Library Perspective in Digital Age" (2020). *Library Philosophy and Practice (e-journal)*. 3916.

<https://digitalcommons.unl.edu/libphilprac/3916>

# QR Codes: Academic Library Perspective in Digital Age

**Dr. Jayadev H. Kadli**

Librarian

Lala Lajpatrai College of Commerce & Economics, Mahalaxmi, Mumbai (India)

## **Abstract**

New and emerging technologies have always been playing the vital role in shaping the different services of libraries. These technologies not only help the users to quick, quality and efficient services but also provide a chance to library and information professionals to think outside the box to make their services effective and responsive.

Top trends will be familiar to some readers who will hopefully learn of new equipment to expand their knowledge. Other readers will be made aware of trends that are outside of their experience. This is the nature of trends in our current technological and educational environments. The change is constant, but it affects different libraries at different level.

With the arrival of affordable smart mobile phones, libraries all over the world have been trying to utilise them for the betterment of their services. QR code is one of the technologies which can be used with smart phones. In India the use of QR Code and smart phones though started late but in these days emerging as basic element of their day to day life and accelerating technology adoption.

In this paper author has discussed and highlighted on QR codes and their use in library. It discusses on how the QR Code technology can enhance the library services with Quick and Quality as prime role. This paper is limited to the library based use and services.

**Keywords:** *QR Code, QR Code Reader, ICT, Mobile phones, Smart-Phones, Academic Library Service, Mobile Communication*

## **Introduction:**

The library in a print form with physical space will not survive in the digital environment. In the current academic environment, the library services should be directed towards changing user's information needs. Two decades ago is the period when an academic library could function solely as a quiet place to study and a large repository of physical items like books, journals, and reports etc. to be collect, issues, return and examined is not workable with methods of pedagogy and research in the current situation. Rather than solely providing a location for print to be housed and the reference services to physically locate items, libraries in the digital environment must facilitate access to content through technology.

There is a range of new methods and tools can be used in changing information and communication technology circumstances and these potentialities need to be aware by librarians. Knowing new technology with different tools and digital content creation finally, facilitating to academic community is big challenge. By doing so academic libraries can establish themselves in the pedagogical community of the current environment. With these new challenges come new opportunities. Librarians can do far more to enhance library services and integrate all activities to support academic performance. One of the opportunities now a day is QR Code based services.

## **Literature Review:**

Walsh (2010) highlights the study made in 2009-2010, the University of Huddersfield implemented QR codes in their libraries, surveyed users regarding QR code awareness, and tracked usage. The library found that initially QR code awareness was low because of insufficient motivation to install a QR code reader and use QR codes.

The study on QR code and their usage by Hicks & Sinkinson (2011) discussed the challenges involved in implementing QR codes in the library, such as user awareness and education. They analyzed data to know how many times a QR code was scanned to determine if QR codes were being used and which were the most popular. The study provided very valuable information for practitioners who wish to try QR codes in their own institutions; however, the study focused almost solely on implementation and usage statistics.

Haworth & Williams (2012) study provides some useful perspectives on using QR codes to improve accessibility, but focused more on implementation and presented only general

observational data. However, Raman, Pushkala and Kokonya Jacklyne (2012) studied the use of QR codes by consumer age ranging between 18 years & 35 years. Where the researchers found that the QR code usage continues to be a novelty and because of curiosity downloaded QR codes.

Walker, Molly Bernhart (2014) discussed the importance of QR code that is considered to be the way to connect physical marketing and services to online resources with mobile devices. The author also analyzed usage of QR codes by different mobile applications like WhasApp, WeChat etc. Ann (2014) study supports the Walker study which explained the importance of QR codes and iPad in libraries, where the author emphasized the QR code and its linkage to databases. The emergence of fake QR code and their impact also discussed.

Pamela (2011) study on mobile technology is defined as handheld information technology devices or artifacts that encompass hardware (devices), software (interface and applications), and communication (network services). This view supported by (Walsh, 2009), who reveals that mobile devices can be used to link to the internet or mail clients through QR codes, which are becoming more visible in libraries and library catalogue.

Fasae and Adegbilero-Iwari (2015) upholds that few are thinking of the potential changes that the uptake of devices with sophisticated capabilities may have on their user community and more specifically on the use of digital information resources.

According to Singh & Nikandia (2017) mobile technologies and QR codes are new communication tools and these are transforming how people can search the information, receive the information and interact with the information on every day basis.

From these examples, it is clear that QR codes are being used in libraries in a variety of ways; however, apart from reporting how they are being used, few studies attempt to determine how QR codes are being perceived by patrons and institutions, how successful these pilot implementations are at meeting institutional goals.

### **Knowing the QR Code:**

Mobile technology has revolutionised the communication process, and the smart phones usage is accelerating day by day. Although there are numerous uses of smart phone for

various operations, one of the unique use of these phones are providing quick response to the users by scanning of QR (Quick Response) codes.

A QR code is alternate terminology for a “Quick Response” or “2D” barcode that can be read by downloadable smart phone readers with camera-scanning capabilities. These were first developed and used in 1994 for the automotive industry in Japan.

The square-shaped code pictures a black pattern against a white background. When the code is scanned by a camera that has been loaded with the appropriate scanning software, the search will reveal a link, when opened, it redirect a user to a web site. These QR codes can be found in books, magazines, on web sites, a handout or flyer, a bookmark, even on video information screens in one’s local shopping mall.

They are named as Quick Response Code because they decode the hyperlinked content at the speedy rate. QR codes are similar to bar codes but, they have two- dimensional pictographic images whose scanning leads to the page which are hyperlinked to them. Like the barcode, they need a particular device called QR codes scanner to get them scanned (read) and reach to the respective hyperlinked object. Smart mobile phones have the apps called QR code scanner or reader to get these images scanned. QR codes are being used on many household products, on reading materials like magazines, books, CDs etc. and even in the advertisement section. The role of QR code for accessing the information would be great if used effectively and the link data should be in the way users want.

### **Purposes and Value of QR codes:**

QR Codes are gaining popularity because the technology is "open source", i.e. available for everyone. More advantages of QR Codes over conventional barcodes are larger data capacity and high fault tolerance. QR codes are easy to generate and use. They are a convenient way to store all kinds of data in a small space. If the data you want to store in a QR code is made of only alphanumeric characters, a single QR code can hold up to 4000 characters.

As they can store different types of information, QR codes are used for many purposes. QR codes are commonly used for holding data such as:

- Simple text - welcome messages at conferences
- Addresses - personal home address, business address

- Phone numbers - personal telephone number, your college phone number
- E-mail addresses - personal or academic accounts
- URLs - addresses of websites or specific web pages
- Links to apps - found in app stores such as Google Play or Apple's App Store
- Payments - QR codes can store information about your bank account or credit card
- WiFi authentication - QR codes can be used to store WiFi networks authentication details such as password and encryption type: when you scan such a QR code using your smart-phone, it can automatically join that network
- Other uses - such as for transcripts and degrees

### **Method of scanning a QR code:**

The easiest and the most common method to scan QR codes are to use your smart-phone and a QR scanning app. There are countless QR scanning apps in Google's Play Store, and there are also plenty of such tools in Apple's App Store. Usually, all you have to do is to point your smart-phone's camera to a QR code, and the QR scanning app translates it.

- ***Scanning QR codes with smart-phones [does not need an app]***

All iPhones running on iOS 11 and higher do not need an additional app to scan QR codes. Most Android also natively supports QR codes. If your smart-phones can natively scan QR codes, open the camera app and point it at a QR code for 2-3 seconds. You will get a notification with a link that you can open to access the content.

- ***Scanning QR codes with smart-phones [ON ANDROID]***

STEP 1: Open the Camera app either from the lock screen or tapping on the icon from your home screen.

STEP 2: Use Google lens - hold your device steady for 2-3 seconds towards the QR Code you want to scan.

STEP 3: Click on the notification to open the content of the QR Code.

- ***Scanning QR codes with smart-phones [ON iOS]***

STEP 1: Open the Camera App from your device's Home Screen, Control Center, or Lock Screen.

STEP 2: Hold your device so that QR code appears in the viewfinder and you see a notification with a link.

STEP 3: Click on the notification to open the link associated with the QR code

*Scan the QR code below to see the information that we stored in it.*



### **Creating a QR code?**

Before creating your QR codes look in to two things. First, make sure to know what kinds of information you want to store. And where are you planning to distribute the QR codes. The easiest way to get a QR Code is to use an online QR Code generator. There you simply enter the data you want to encode and generate the Code right away. Once you made your mind, use your favourite web search engine and look for "QR code generators." There are plenty of such free tools on the internet. Some of the best two I am using: [QR Stuff](#) and [QR Code Monkey](#).

### **QR Codes use in Library:**

QR code can be used for many purposes like in banners of the workshop, seminar, and conference. They used induction programmes for further information; notices; websites; URLs etc. These used in online sites as well as print forms. However, the use of QR codes by libraries main purpose is to make users resourceful and services as quick, quality and user-friendly.

- *Mainly in following library services QR code be used effectively.*
- Library web site
- Library blogs

- E-resources
- Book shelves
- New Arrivals
- Manuals and Guides
- ***QR code is used in linking other resources location with QR Code.***
- Syllabus, Question Papers
- Institutional Annual Reports, Magazines
- Free e-Resources
- Rare Books
- Audio/Video resource
- Event Photographs
- Institutional repositories
- Regional Language Collections
- Linking to library audio tours for orientations
- ***Other Library Services through QR Code.***

The main services rendered with the full resources or collection available in library. On the basis of these resources library can disseminate short information services, like, List of New Arrivals (Books), Audio/Video Books list, Current Content List, etc. Further, the same service can be of cumulative in nature.

This indicates that almost all library services are rendered through QR code. If someone wants to deliver any innovative library service is also possible through the QR code. Like, in Stack room or Journal Display area that point to online electronic holdings of print materials or related subject guides. Unlike resources, technical service like, Wi-Fi connection in library premise is also made through QR Code.

## **Conclusion**

It's being said that 2019 may be the year of QR codes, even though they were declared “dead” 5-6 years ago. This proves that QR codes are, in fact still in use today, and even becoming more popular. This means users are now able to scan and interact with QR codes without downloading a separate app. With the increase use of mobile technology and QR



code, library shall implement mobile based QR code technology to connect user community with information resources.

Academic libraries are floating to get benefit from the momentum created by the QR codes in the business world. However, QR codes should not be used just for the sake of the technology, we need to ensure and take care to implement QR codes where they really make our users' lives easier. We must focus on use of QR code must add value to the library services over other delivery methods.

To educate our academic communities about QR codes and their uses and the quality services by library are main challenges need to address. The awareness and quality services are important for the future growth and long sustainability of QR code technology.

### **References:**

Fasae, J.K & Adegbilero-Iwari, I. (2015). Social media use by students in colleges of science in two selected private universities in south west, Nigeria. Middle belt Journal of Library and Information Science. 13 (1), 1 -15

Haworth, A. and Williams, P. (2012) Using QR codes to aid accessibility in a museum. Journal of Assistive Technologies, 6 (4). pp. 285-291. ISSN 2042-8723 doi: <https://doi.org/10.1108/17549451211285771>

Available at <http://centaur.reading.ac.uk/33754/>

Hicks & Sinkinson (2011). Situated Questions and Answers: Responding to Library Users with QR Codes. Reference & User Services Quarterly, 51(1), 60–69

Pamela B.(2011). Quick Response Codes Appear on More Resumes. Available at <https://www.shrm.org/resourcesandtools/hr-topics/technology/pages/qrcoderesumes.aspx>

Raman, Pushkala and Kokonya Jacklyne (2012) Scan Me if you will: A study of QR code use. Society for Marketing Advances Proceedings, p147-149.

Singh Karan & Nikandia, Pradip (2017). Role of Mobile Technology and their Application in Library Services in Digital era. International Research: Journal of Library & Information

Science, 7(1), 157-166.

Walsh, Andrew (2009). Quick Response codes and libraries. Library Hi Tech News, vol. 26(5/6), 7-9

Walsh, Andrew (2010). QR Codes-using mobile phones to deliver library instruction and help at the point of need. Journal of information literacy, 4(1), 55-63

Walker, Molly Bernhart (2014) don't ring the QR code death knell just yet. Fierce Mobile IT P1-1.

***Further Readings:***

<https://www.digitalcitizen.life/simple-questions-what-are-qr-codes-and-why-are-they-useful>

<https://www.ecampusnews.com/2017/03/24/growing-trends-academic-libraries/>

<https://www.qr-code-generator.com/how-to-create-a-qr-code/>

<http://publiclibrariesonline.org/2013/04/qr-codes-in-libraries-some-examples/>

<https://crln.acrl.org/index.php/crlnews/article/view/8454/8696>

<https://mlibraries.jiscinvolve.org/wp/case-studies/qr-codes-at-senate-house-library-a-case-study/>

<https://blog.beaconstac.com/2019/09/7-best-qr-code-scanner-apps-leading-the-pack-in-2019/>